

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P556074

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-93-94-EDD-90**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P556074  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FUSL-12-2-LD4-3STD-40-UNV-93-94-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE  
AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

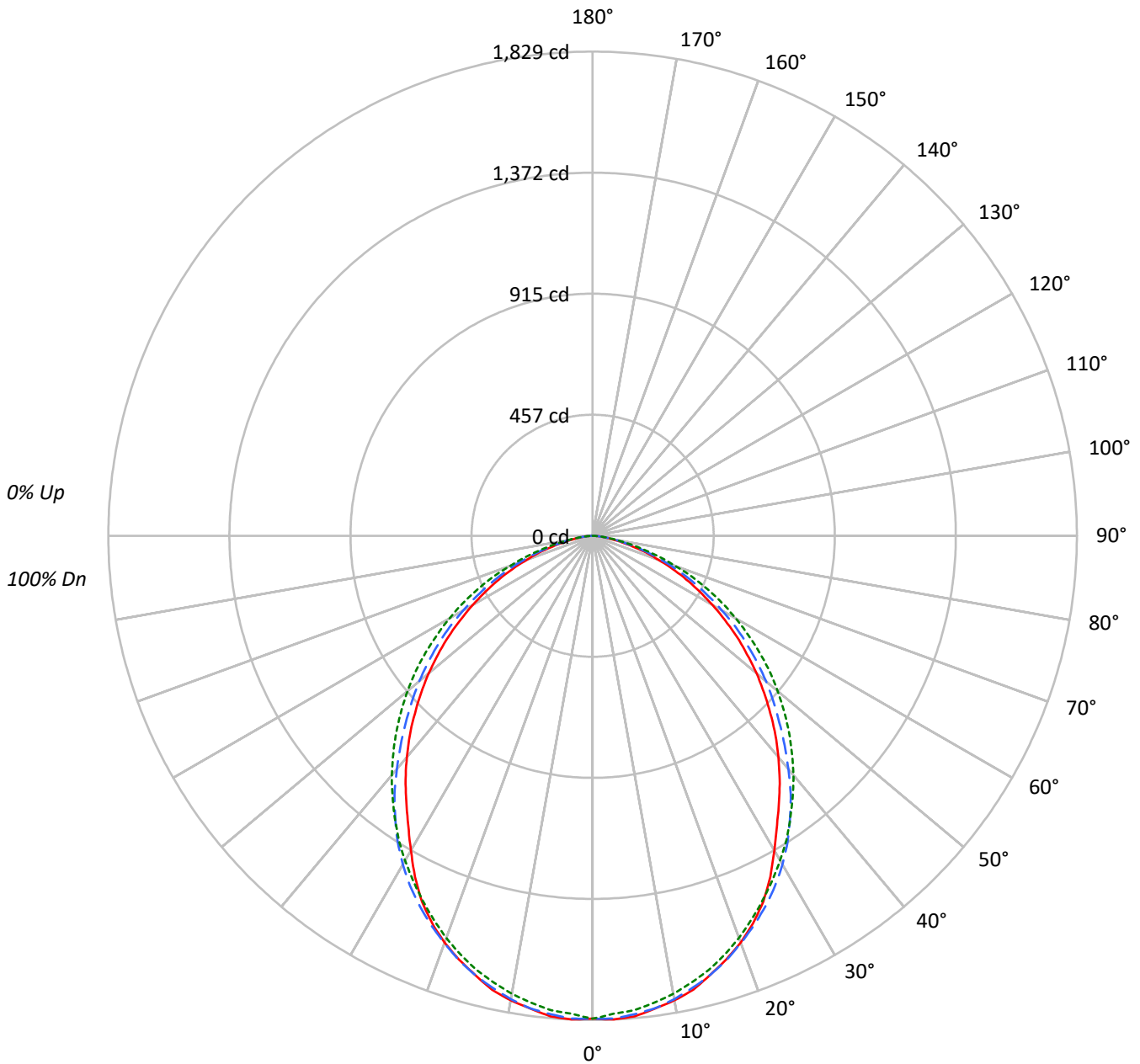
Lumens per Lamp: N/A  
Luminaire Lumens: 4218.0 lumens  
Efficiency: N/A  
Efficacy: 84.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9818	9818	9818
5°	9844	9802	9719
10°	9739	9712	9601
15°	9567	9567	9457
20°	9364	9376	9255
25°	9055	9168	9022
30°	8528	8910	8802
35°	8058	8541	8555
40°	7666	8079	8291
45°	7228	7590	7980
50°	6765	7153	7639
55°	6241	6655	7227
60°	5620	6072	6721
65°	4961	5400	6113
70°	4135	4598	5194
75°	3250	3672	4065
80°	2325	2585	2867
85°	1513	1513	1426



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	171.8	4.1
10°-20°	482.5	11.4
20°-30°	705.1	16.7
30°-40°	800.4	19.0
40°-50°	772.6	18.3
50°-60°	637.4	15.1
60°-70°	424.4	10.1
70°-80°	189.9	4.5
80°-90°	34.0	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1359.3	32.2
0°-40°	2159.7	51.2
0°-60°	3569.7	84.6
0°-90°	4218.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4218.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1824	1824	1824	1824	1824	
5°	1822	1821	1814	1805	1799	172
15°	1717	1721	1717	1709	1697	484
25°	1525	1537	1544	1533	1519	698
35°	1226	1243	1300	1307	1302	768
45°	950	966	997	1043	1048	733
55°	665	676	709	748	770	594
65°	390	400	424	454	480	386
75°	156	165	177	185	196	171
85°	24	24	24	23	23	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1824.2	1824.2	1824.2	1824.2	1824.2
2.5°	1829.1	1829.8	1825.6	1814.4	1807.4
5°	1822.1	1821.4	1814.4	1804.6	1798.9
7.5°	1801.8	1803.2	1801.0	1787.0	1779.3
10°	1782.1	1782.8	1777.2	1766.0	1756.9
12.5°	1756.9	1756.2	1748.5	1742.9	1728.2
15°	1717.0	1721.2	1717.0	1709.2	1697.3
17.5°	1678.4	1678.4	1681.2	1667.9	1658.8
20°	1635.0	1637.1	1637.1	1626.6	1616.0
22.5°	1584.5	1590.8	1592.9	1581.7	1569.1
25°	1524.9	1536.8	1543.9	1532.6	1519.3
27.5°	1452.8	1471.0	1492.0	1483.6	1468.9
30°	1372.2	1398.8	1433.8	1426.8	1416.3
32.5°	1295.8	1322.4	1370.8	1368.0	1362.4
35°	1226.4	1243.2	1300.0	1307.0	1302.1
37.5°	1160.5	1175.9	1229.2	1245.3	1241.1
40°	1091.1	1108.0	1150.0	1178.7	1180.1
42.5°	1022.5	1038.6	1072.9	1114.3	1114.3
45°	949.6	965.7	997.2	1042.8	1048.4
47.5°	878.1	894.9	925.8	971.3	980.4
50°	808.0	823.4	854.3	898.4	912.4
52.5°	735.1	752.0	782.1	822.7	843.1
55°	665.1	676.3	709.2	748.5	770.2
57.5°	592.2	602.7	639.8	673.5	695.9
60°	522.1	535.4	564.1	598.5	624.4
62.5°	454.8	468.8	493.4	523.5	552.9
65°	389.6	400.2	424.0	454.1	480.0
67.5°	326.6	335.7	359.5	380.5	407.9
70°	262.8	274.7	292.2	312.6	330.1
72.5°	211.6	216.5	231.3	246.0	264.2
75°	156.3	164.7	176.6	185.0	195.5
77.5°	112.1	117.0	124.0	131.0	140.9
80°	75.0	77.1	83.4	84.8	92.5
82.5°	45.6	47.0	48.4	49.1	51.9
85°	24.5	24.5	24.5	23.1	23.1
87.5°	14.0	14.0	11.9	9.8	7.0
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)